

**STATEMENT OF WORK
IRRIGATION STORAGE RESERVOIR (436)
Wyoming**

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design Surveys
 - a. Profile along centerline of dam and emergency spillway
 - b. Profile and alignment of conduits and principal spillway (100 feet upstream and 300 feet downstream).
 - c. Cross-sections on dam and emergency spillway centerline
 - d. Basin topography to the extent needed for design
 - e. Foundation and soils investigation ties
 - f. Drainage area
 - g. Possible borrow areas
2. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
 - a. Practice purpose(s) as identified in the conservation plan
 - b. List of required permits to be obtained by the client
 - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
 - d. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Geology and Soil Mechanics (NEM Subpart 531a)
 - ii. Hydrology/Hydraulics
 - iii. Stage-storage data
 - iv. Structural including hazard class as appropriate
 - v. Structural design
 - vi. Vegetation
 - vii. Quantity computations
 - viii. Environmental Considerations
 - ix. Safety Considerations (NEM Part 503-Safety, Subpart A, 503.10 through 503.12)
 - x. Record of determination of hazard classification (NEM 520.23)
3. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits...
 - a. Plan, profile and maximum cross section of embankment and emergency spillway
 - b. Profile along centerline of principal spillway and drawdown conduit. (May combine with "a" above.)
 - c. Stage storage data, drainage area
 - d. Location map
 - e. Spillway hydraulics
 - f. Structural layout and details
 - g. Table of quantities
 - h. Borrow area
 - i. Fill material and compaction requirements
4. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32).
5. Operation and Maintenance Plan
6. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03 (a) (3)).
7. Design modifications during installation as required.

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INSTALLATION

Deliverables

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
 - a. Centerline and slope stakes for the embankment pond and emergency spillway.
 - b. Grade and alignment stakes for conduits and principal spillway
 - c. Slope stakes for cutoff trench and drains
4. Installation inspection (according to inspection plan as appropriate).
 - a. Actual materials used (Part 512, Subchapter D Quality Assurance Activities, 512.33)
 - b. Inspection records
5. Facilitate and implement required design modifications with client and original designer
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

Deliverables

1. As-Built documentation.
 - a. Extent of practice units applied
 - b. Drawings
 - c. Profile and cross-section of cutoff trench (accomplished during construction for other than minimum trenches).
 - d. Dimensions, number and materials used for anti-seep collars (accomplished during construction).
 - e. Profile along centerline of completed embankment and emergency spillway (100' maximum interval).
 - f. Cross –section of embankment and spillway (1 minimum).
 - g. Dimensions, elevations, materials of principal spillway and drawdown conduits
 - h. Size, type and model of all valves, gates, hoists, and other appurtenances.
 - i. Material test results (recorded on applicable form).
 - j. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03 (c) (1)).
3. Progress reporting.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Irrigation Storage Reservoir, 436
- NRCS National Engineering Manual (NEM).
- NRCS Technical Release 60, Earth Dams and Reservoirs
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook